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Attorney Reference No.: 59486.000002

Application No. 09/853,635

Filed: May 14, 2001

Applicant: Bengt Krister OLSON

Group Art Unit: 1655

Examiner: Dr. Kailash C. Srivastava

Date of Amendment: November 30, 2006

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

104. (Currently Amended): A method of increasing collagen synthesis or lessening the decrease in collagen synthesis in the dermis comprising the oral administration to a human of a composition comprising:

- i) at least one glycosaminoglycan found in cartilage enzymatic hydrolysate, or a synthetic form of at least one glycosaminoglycan;
- ii) ii) at least one polyphenolic, hydrophilic antioxidant found in grape seed; or synthetic form of at least one polyphenolic hydrophilic antioxidant and esters thereof; and
- iii) lycopene.

105. (Withdrawn): A method according to claim 104, wherein the at least one polyphenolic, hydrophilic antioxidant is obtained from a grape seed extract.

106. (Previously Presented): A method according to claim 104, wherein said at least one polyphenolic, hydrophilic antioxidant is obtained from at least one natural source.

107. (Withdrawn): A method according to claim 104, wherein said at least one polyphenolic, hydrophilic antioxidant is obtained from a natural source, said natural source selected from

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the group consisting of pine bark, *Vitis vinifera*, *Camelia sinensis*, *Aesculus hippocastanum*, *Gingko biloba*, *Vaccinium myrtillus*, *Silybum marianum*, and combinations thereof.

108. (Previously Presented): A method according to claim 104, wherein said at least one polyphenolic, hydrophilic antioxidant comprises an oligomeric procyanidol.

109. (Previously Presented): A method according to claim 104, wherein said lycopene is obtained from a tomato variety.

110. (Previously Presented): A method according to claim 104, wherein said lycopene is obtained from a tomato extract.

111. (Currently Amended): A method according to claim 104, wherein said composition further comprises a carotenoid comprising β -carotene, γ -carotene, δ -carotene, zeaxanthin, cryptoxanthine, luteine, xanthophyll, or a combination thereof.

112. (Previously Presented): A method according to claim 104, wherein the composition comprises lycopene in an amount of 0.1 to 5% wt/wt.

113. (Previously Presented): A method according to claim 111, wherein the composition comprises less than 0.025% β -carotene by weight.

114. (Previously Presented): A method according to any one of claims 104 and 105, wherein the composition comprises 0.25-15 mg of lycopene and 2.5-100 mg of a grape seed extract.

115. (Previously Presented): A method according to any one of claims 104, 105, 127 and 129, wherein said composition comprises 1-2.5 mg of lycopene, 5-50 mg of grape seed extract and 50-200 mg of cartilage enzymatic hydrolysate.

116. (Withdrawn): A method of increasing collagen synthesis or lessening the decrease in collagen synthesis in the dermis comprising the oral administration of a composition comprising:

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20-40%, weight/weight, cartilage enzymatic hydrolysate comprising
glycosaminoglycan;
1-10%, weight/weight, grape seed extract comprising oligomeric procyanidol; and
1-10%, weight/weight, tomato extract comprising lycopene.

117. (Previously Presented): A method according to 104, wherein said composition
further comprises *Acerola* extract.

118. (Withdrawn and Currently Amended): A method of increasing collagen
synthesis or lessening the decrease in collagen synthesis in the dermis comprising the oral
administration of a composition comprising:

100-110 mg of shark cartilage enzymatic hydrolysate comprising glycosaminoglycan;
~~95-105~~ 2.5-100 mg of grape seed extract comprising oligomeric procyanidol and
0.25-15 mg lycopene;
2.5-35.00 mg of *Acerola* extract;
60-90 mg of microcrystalline cellulose; and
3.5-4.5 mg of silicon dioxide.

119. (Withdrawn and Currently Amended): A method of increasing collagen
synthesis or lessening the decrease in collagen synthesis in the dermis comprising the oral
administration of a composition comprising:

100-110 mg of shark cartilage enzymatic hydrolysate comprising glycosaminoglycan;
2.5-100 mg of grape seed extract comprising oligomeric procyanidol; and
0.25-15 mg lycopene;
wherein the combined mass of the grape seed extract and the lycopene is 95-105 mg;
60-65 mg of inulin;

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25-35.00 mg of ascorbic acid;
10-20 mg of zinc gluconate; and
10-15 mg of silicon dioxide.

120. (Previously Presented): A method according to claim 114, wherein said composition comprises 0.75-2.5 mg of lycopene and 10-30 mg of grape seed extract.

121. (Withdrawn): A method according to claim 104, wherein said composition is in a form for oral administration comprising tablets, powders, granules, capsules, sachets, solutions, suspensions, tonics of syrups, or a combination thereof.

122. (Withdrawn): A method according to claim 105, wherein the grape seed extract is obtained by using organic solvents.

123. (Withdrawn): A method according to claim 122, wherein said grape seed extract comprises up to 25% w/w of catechin, epicatechin or gallic acid; up to 90% w/w of epicatechin dimer, trimer or tetramer, or gallates thereof, or up to 10% w/w of epicatechin pentamer, hexamer or heptamer, or gallates thereof.

124. (Previously Presented): A method according to claim 104, wherein said glycosaminoglycan is from a cartilage enzymatic hydrolysate obtained by enzymatic proteolytic cleavage of cartilage.

125. (Previously Presented): A method according to claim 124, wherein said cartilage is selected from the group consisting of bovine cartilage, porcine cartilage, shark cartilage, squid cartilage, chicken cartilage and salmon cartilage.

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126. (Previously Presented): A method according to claim 104, wherein said glycosaminoglycan is from a shark cartilage enzymatic hydrolysate obtained by enzymatic proteolytic cleavage of said shark cartilage.

127. (Previously Presented): A method according to any one of claims 104 and 124, wherein said glycosaminoglycan comprises chondroitin ester, a keratan ester, hyaluronic acid or an ester thereof, a dermatan ester, heparin or a heparan ester.

128. (Withdrawn): A method according to any one of claims 104 and 105, wherein the grape seed extract and lycopene are in weight/weight ratio of about 5:1 to 15:1.

129. (Previously Presented): A method according to any one of claims 105 and 124, wherein the cartilage enzymatic hydrolysate and the grape seed extract are present in a weight/weight ratio in the range of from about 5:1 to 15:1.

130. (Previously Presented): A method according to any one of claims 105 and 124, wherein the cartilage enzymatic hydrolysate and grape seed extract are present in a weight/weight ratio of about 1:2 to 2:1.

131. (Previously Presented w): A method according to any one of claims 104 and 124, wherein the cartilage hydrolysate and lycopene are present in a weight/weight ratio of about 1:2 to 2:1.

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132. (Withdrawn): A method according to claim 122, wherein the grape seed extract is obtained by using the organic solvents, evaporating the solvents, re-dissolving a residue in water, and filtering and drying a filtrate.

133. (Withdrawn): A method according to claim 122, wherein the organic solvents are selected from the group consisting of acetone, ethyl acetate and mixtures thereof.

134. (New) A method according to claim 104, wherein the weight ratio of the at least one polyphenolic, hydrophilic antioxidant to lycopene is about 1:1 to about 200:1, 2:1 to 100:1, 5:1 to 50:1, 5:1 to 20:1, 5:1 to 15:1, 7:1 to 12:1 or about 10:1.

135. (New) A method according to claim 104 wherein the weight ratio of the at least one glycosaminoglycan to the at least one polyphenolic, hydrophilic antioxidant is about 1:1 to about 200:1, 2:1 to 100:1, 5:1 to 50:1, 5:1 to 20:1, 5:1 to 15:1, 7:1 to 12:1 or about 10:1.

136. (New) A method according to claim 104 wherein the composition consists essentially of:

- i.) at least one glycosaminoglycan found in cartilage enzymatic hydrolysate, or a synthetic form of at least one glycosaminoglycan;
- ii.) at least one polyphenolic, hydrophilic antioxidant found in grape seed; or synthetic form of at least one polyphenolic hydrophilic antioxidant and esters thereof; and
- iii) lycopene.

137. (New) A method according to claim 104 which includes a cosmetic or prophylactic treatment of skin against the signs of skin ageing, and damage resulting from exposure to UV radiation comprising the oral administration of the composition of claim 104.